

SIP Trunking: Second-Wave Benefits

SIP trunking initially provided network savings to customers, but there are additional "second-wave" benefits to consider

Reference Code: OT00050-002

Publication Date: January 2011

Author: Mike Sapien

SUMMARY

In a nutshell

The initial benefit for customers converting to SIP trunks almost exclusively consisted of network savings on trunk expenses. After a review of enterprise customer case studies and recent research, there appear to be many secondary or emerging applications that can be strategically more important than the initial benefit of network savings. As large-enterprise customers start to make the conversion to SIP trunking and redesign their IPT infrastructure, these customers discover increasing opportunities to integrate, centralize, and introduce new features and applications beyond the initial network cost savings. This report will highlight trends and examples of "second-wave" benefits that users contemplating SIP trunking should consider when justifying the business case.

Ovum view

During the introduction of SIP trunking during the past few years, service availability has been slow in coming to most markets. Many of the early network providers were the tier-2 carriers or competitive providers using SIP trunking services to cause disruption in the marketplace, with a strong focus on network savings as the primary benefit. But during the past year, there have been strong signs within the industry by vendors, integrators, and the major incumbents that they will support SIP trunking services, especially for large enterprise customers. During 2010, it became

clear that SIP trunking combined with an IPT architecture will act as a catalyst for integration, centralization, and deployment of unified communications in enterprise environments.

Ovum expects to see increased deployment of SIP trunking within developed markets, expanding from the US and European regions into other global regions. We also expect to see business case development and ROI studies include more benefits than just the network savings. This report provides insight into some of the emerging benefits, potential service integration, and future applications that enterprise customers need to consider as part of planning for a potential investment in SIP trunking services.

Recommendations for players

For the enterprise customer

- Network savings are just one part of the benefits of moving to SIP trunking from legacy trunking or TDM.
- SIP trunking is just one major element of the transition to IP communications and platforms for UC, services, and applications.
- Build a SIP trunking and IPT conversion plan and business case with the network savings benefits as the initial benefits, but also consider other opportunities, such as unified communications and the potential to consolidate and integrate other applications.
- Evaluate the role for SBCs in the network for all the multiple SBC functions including protocol conversion, routing, and standardization of dissimilar equipment and SIP trunking.
- Include diversity and redundancy alternatives that are enabled by the conversion to SIP trunking and IP communications.

For service providers

- SIP trunking is one major part of making the transition to IP communications, but requires more than just network service assessment. Business process assessment should also be part of the migration to SIP trunking and IP communications projects.
- Provide consulting and professional services that address more than network savings to promote second-wave benefits and additional services.
- Develop a network architecture that can integrate other unified communication services including email, video, IM, and call center features.



For the incumbents, start making plans to offer SIP trunking services within your home region and start working with your large enterprise customers now before they move to competitors.

CUSTOMER BENEFITS, PAST AND PRESENT

Early adopters of SIP trunking focused on network savings

The focus of these savings was all about network and usage

As part of our research for our 2009 SIP trunking report ("SIP trunking: US and European trends"), Ovum found that carriers and customers were focused on saving trunk costs and usage costs. Trunk savings were based on reducing the number of trunks as well as some savings from the over-subscription of SIP trunks at each location. The other major savings element was the lower cost of long-distance, toll, and local usage charges including the free on-net to on-net calling that is available from many SIP trunking providers.

But SIP trunking benefits are clearly beyond these initial "first-wave" network savings

During the past year there has been growing interest in deploying SIP trunking, but there are many other potential services and infrastructure benefits beyond network savings. These customer case studies, recent research, and customer feedback have proven that many of the additional benefits and services are enabled with the transition to SIP trunking. In many cases, these other benefits can outweigh network savings.

Some examples of these benefits are: the ability to integrate and consolidate corporate applications (e.g. email, voicemail); increased diversity of alternatives; redundancy between data centers; and flexible routing of call traffic (e.g. reroute to call centers, "follow the sun" workflow load balancing). These additional benefits are the "second-wave" benefits that enterprise customers need to evaluate as part of making the investment in the transition to SIP trunking. And this sets the stage for the increased introduction of unified communications.

CASE STUDIES

Highlights of two customer case studies

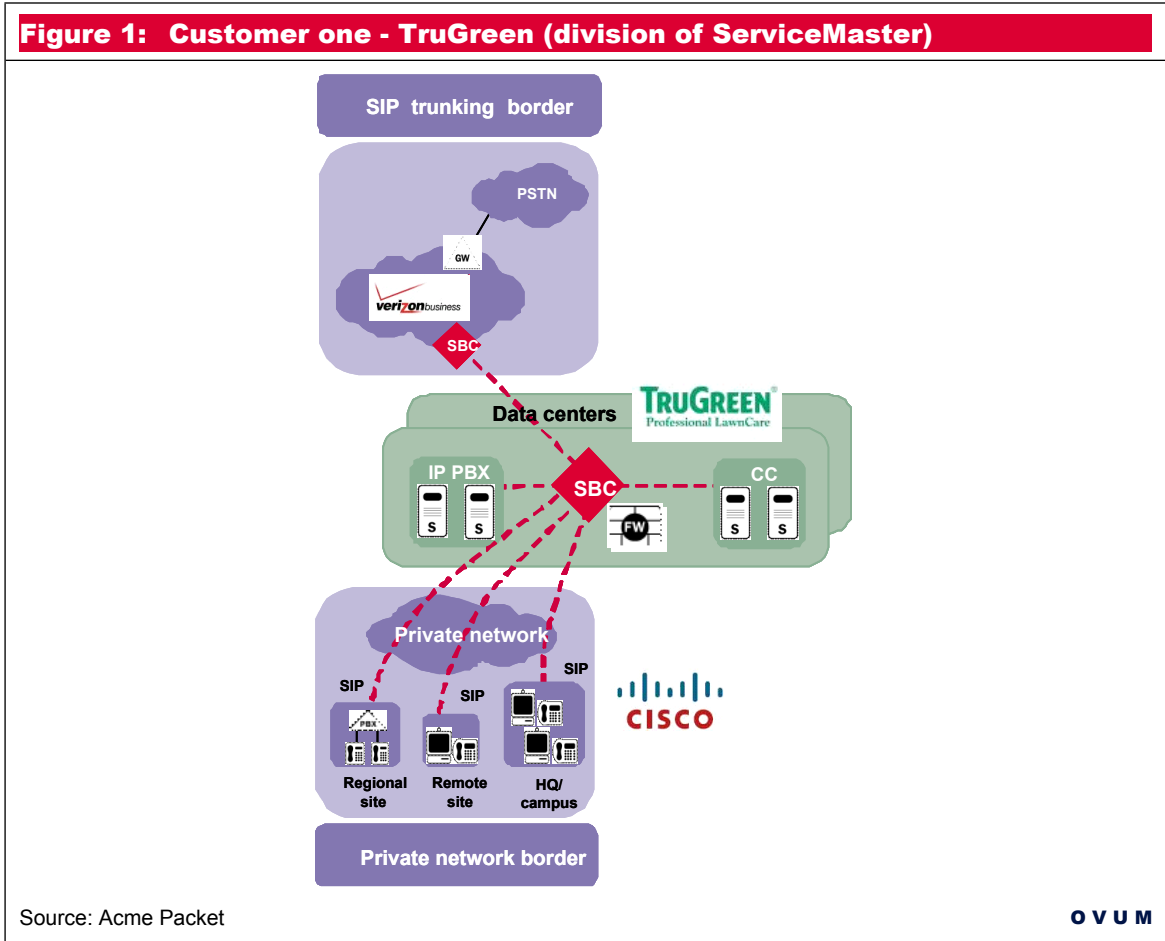
Customer one, service company, TruGreen (a division of ServiceMaster)

TruGreen is a division of ServiceMaster that provides national landscape and lawn services to business and residential customers in the US and Canada. It has more than 225 office locations and was looking for ways to connect its office locations with its Memphis headquarters. It had Cisco IP-PBXs at all its major offices and head office.

The original objective was to create a standard communications network, introduce connectivity to all locations, and reduce the overall network costs for its national network. The national carrier that was selected was Verizon Business Services for SIP trunking and network services. The architecture also included a Session Border Controller (SBC) in its data centers as part of the centralized network architecture.

The initial benefit and cost savings were focused on network trunking costs, long-distance usage, and local calling usage costs. But in addition to this cost savings benefit, there were other benefits that were considered once the network implementation was completed. These included:

- centralized call routing that allowed increased flexibility of staffing – inbound calls to the company's central numbers could be re-routed to regional offices to balance the workload of customer calls and cover after-hours customer support by office staff in adjacent regions.
- diversity between its data centers – TruGreen was able to create redundant trunks and service diversity between its two major data centers. This also allowed it to increase its uptime by allowing back-up between each data center.
- call center consolidation, back-up, and time-of-day routing – calls could now be routed to the major call center locations between the major regions for both overflow and after-hours support.
- Back-up of regional offices and re-routing calls after hours – the regional offices could back up each other within the same region and also re-route calls during training sessions and for after-hours support.



Customer two, state government, state of Delaware (DTI)

The state of Delaware (Department of Technology & Information) provides common, shared infrastructure services for many of the state agencies within Delaware. The DTI was looking for a way to standardize its IPT and voice communications as well as reduce its overall network costs. Many of the agencies have different PBX platforms but a large number have Cisco or Avaya PBX platforms which needed to be supported in any new network alternative.

In this case the objective was network savings including usage, standardization, supporting all locations with the two major vendor PBXs, as well as smaller locations. This was a state-wide network with two major data centers and the individual agencies allowed to select their PBX platform. The new architecture required an SBC in the data centers. The carrier again was Verizon



Business, which provided the network services and some of the integration services for the new network.

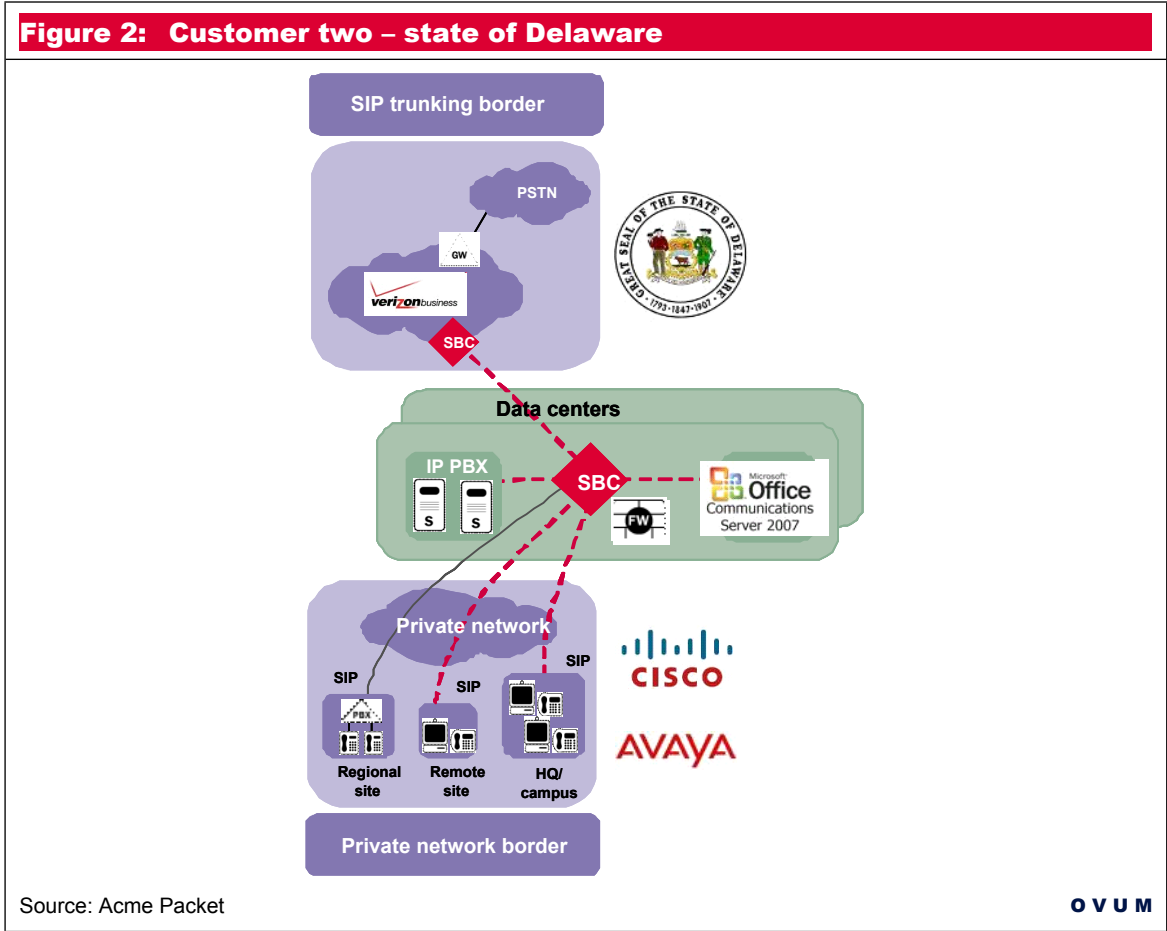
In this case, savings on usage and standardization were realized with the new network. Savings on trunking costs were still being calculated as many sites still had some redundant trunks in place, but the expectation was that there would be trunk savings within the next few months.

The other benefits and planned expansion included some additional services and applications that were enabled by the new SIP trunk-based network architecture. These included:

- consolidation of Microsoft OCS platforms into two data centers
- creating one voicemail and unified messaging platform that could be shared among all agencies
- extending service as well as increasing quality of service to smaller remote sites with SIP trunking
- ability to support the existing PBX platforms and phase in replacement over time (reduce capital requirements for its agency customers)
- ability to easily add redundant Verizon trunking services into each major data center for full service diversity.

With these in mind, the state of Delaware DTI is considering these future applications:

- single directory
- creating PRI gateway to connect to legacy sites
- adding UC services such as IM, presence, video, and click-to-call.



THE JOURNEY TO SECOND-WAVE BENEFITS

Customers built their initial ROI business case on network savings

The network savings are initially realized based on the business case

Although the conversion cost and capital required to make the transition to SIP may be underestimated, network savings and usage savings are normally realized within the first few months of transitioning to a SIP trunking/IP communications network platform. In many of the early business cases to convert to SIP trunking, the required equipment for IP PBX and network hardware ("capital costs") and implementation labor were not estimated properly and were substantial enough that many enterprise customers delayed their decision to make the transition to SIP trunking. But the trunking costs combined with the usage savings in toll charges, and local calling

can generally result in more than 60% cost savings over existing infrastructures and trunking services. Again, in the context of a business case, such savings are usually the initial benefit that is proposed, and the prospect of such a reduction in expenditure motivates the move to SIP trunking in the first place.

But then enterprise customers discover there are other opportunities

Once enterprise customers make the transition to SIP trunking and start to centralize their infrastructure, there are some common trends or applications that get considered. In the cases Ovum has reviewed, these seem to be a natural progression once the network and usage savings are realized.

Ovum believes that once a business has migrated to SIP, it should consider the following new areas as targets for savings:

- consolidating data centers or major infrastructure locations – the reduction of major sites cuts overall cost, reduces data center resources, operational expenses, and lowers capital requirements. It also tends to reduce the number of hardware and software instances to support.
- audio conferencing savings, especially for MNC customers – using the SIP trunking network allows customers to create an internal audio bridging capability from any location on their network. It also permits making a call to a local office to create an audio conference call, thereby avoiding toll charges or the use of toll-free bridge services.
- call center applications and features including flexibility in using in-sourced or out-sourced resources – once the SIP trunking network is in place, the call center traffic can be load-balanced or re-routed for disaster recovery, and this call center traffic can also be balanced with internal and external third-party call center vendors.
- consolidating email services or email servers – once the network is in place, email platforms can be consolidated onto one primary (with back-up) instance in the major data centers or central sites, and allow access to all users on the converged network.
- improving disaster recovery options for communications and applications – with a SIP trunking network in place, there is the ability to create redundancy and diversity alternatives as well as route traffic to alternative internal or external locations for a large variety of unified communication services and applications.
- load balancing or routing applications including voice, call center, and customer care traffic – with the use of SIP, it is easier to perform load balancing of call traffic for

voice or call center traffic and also integrate with customer care agents and applications.

- load balancing and diversity of providers for many enterprise applications including voice, data, conferencing, and call center services – the use of SIP provides some ability to integrate and load-balance traffic between internal and external resources. This includes potentially creating a method to gauge performance between multiple service bureaus or conferencing services.
- platform for integration and addition of UC services (e.g. IM, presence, video, conferencing) – the SIP trunking network and protocol provide session management capability to integrate and manage many of the unified communications services including video communications.

These may or may not be relevant for all enterprises, and this is by no means a comprehensive list, but the savings opportunities above are the most common Ovum has found based on the recent surveys and research.



APPENDIX

Methodology

Ovum referenced two SIP trunking customer case studies and related deployments. We have conducted regular conversations about SIP services with equipment vendors, providers, and customers.

Further reading

- "SIP trunking: US and European trends", Peter Hall / Mike Sapien, OVUM050798

Author

Mike Sapien, Principal Analyst, Enterprise Practice, Telecoms

mike.sapien@ovum.com

Ovum Consulting

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